

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office 	Docket No.:	Serial No.:
	INVIT1250-5	09/835,096
	Applicant(s): Jay M. Short	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date: 04/12/2001	Group Art Unit: 1639 RECEIVED

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U.S. PATENT DOCUMENTS

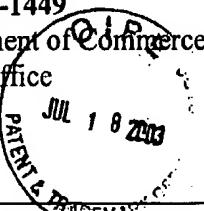
EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
<i>MC</i>	AA	4,959,309	09/25/1990	Dattagupta et al.	435	6	
	AB	5,207,163	12/1993	Gold et al.	435	6	
	AC	5,270,170	12/14/1993	Schatz et al.	435	7.37	
	AD	5,475,096	12/1995	Gold et al.	536	26	
	AE	5,510,240	04/23/1996	Lam et al.	435	7.1	
	AF	5,660,985	08/1997	Pieken et al.	435	6	
	AG	5,683,867	11/1997	Biesecker et al.	435	6	
<i>✓</i>	AH	5,705,337	01/1998	Gold et al.	435	6	
<i>MC</i>	AI	5,739,305	04/23/1996	Cubicciotti et al	536	23.1	

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
<i>MC</i>	AJ	2 183 661	06/1987	UK	C12N	15/00	
<i>✓</i>	AK	WO 89/06694	07/1989	WO	C12P	21/00	
<i>✓</i>	AL	WO 91/14696	10/1991	WO	C07H	17/00	
<i>MC</i>	AM	WO 92/14843	09/1992	WO	C12Q	1/68	

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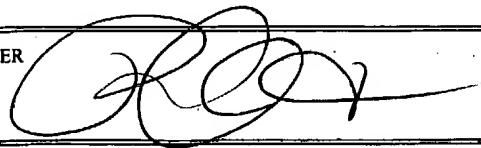
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MC	AN	WO 95/07364	03/1995	WO	C12Q	1/68	
	AO	WO 95/20591	08/1995	WO	C07F	5/02	
	AP	WO 95/08003	03/1995	WO	C12Q	1/68	
	AQ	WO 95/22625	08/1995	WO	C12Q	1/68	
	AR	WO 95/31429	11/1995	WO	C07C	205/00	
	AS	WO 96/04403	02/1996	WO	C12Q	1/68	
	AT	WO 96/09316	03/1996	WO	C07H	21/02	
	AU	WO 96/08274	03/1996	WO	A61K	47/48	
MC	AV	WO 96/27605	09/1996	WO	C07H	21/02	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

MC	AW	Abelson, J. "Directed Evolution of nucleic acids by independent replication and selection" <i>Science</i> 249: 488-489 (1990)
	AX	Bartel, D.P. and Szostak, J.W. "Isolation of new ribozymes from a large pool of random sequences" <i>Science</i> 261:1411-1418 (1993)
	AY	Beaudry, A.A. and Joyce, G.F "Directed Evolution of an RNA Enzyme" <i>Science</i> 257: 635-641 (1992)
✓	AZ	Cech, T.R. "The chemistry of self-splicing RNA and RNAEnzymes" <i>Science</i> 236: 1532-1539 (1987)
MC	BA	Conrad, R. et al. "Isozyme-specific inhibition of protein kinase C by RNA aptamers" <i>J. Biol. Chem.</i> 269: 32051-32054 (1994)

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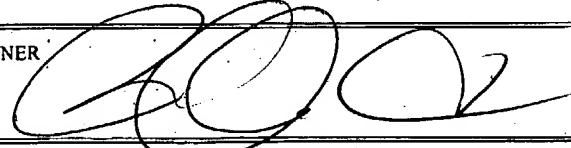
<i>MS</i> ✓	BB	Crouch, G.J. and Eaton, B.E. "Synthesis of 2'-deoxyuridine nucleosides with appended 5-position carbonyl cross-linking groups" <i>Nucleosides & Nucleotides</i> 13: 939-944 (1994)
✓	BC	Dewey, T.M. et al. "New uridine derivatives for systematic evolution of RNA ligands by exponential enrichment" <i>J. Am. Chem. Soc.</i> 117: 8474-8475 (1995).
✓	BD	Ellington, A.D. and Szostak, J. W. Abstract of papers presented at the 1990 meeting on RNA Processing. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, p226 (1990)
✓	BE	Freier, S.M. et al. "Mutational SURF : A strategy for improving lead compounds identified from combinatorial libraries" <i>Bioorganic & Medicinal Chemistry</i> 4:717-725 (1996)
✓	BF	Jensen, K.B. et al. "Characterization of an in vitro selected RNA ligand to the HIV-1 rev protein" <i>J. Mol. Biol.</i> 235:237-247 (1994)
✓	BG	Joyce, G.F. "Amplification, mutztion and selection of catalytic RNA" <i>Gene</i> 82:83-87 (1989)
✓	BH	Joyce, G.F. and Inoue, T. "A novel technique for the rapid preparation of mutant RNAs" <i>Nucleic Acids Research</i> 17:711-714 (1989)
✓	BI	Kinzler, K.W. and Vogelstein, B. "Whole genome PCR: Application to the identification of sequences bound by gene regulatory proteins" <i>Nucleic Acids Research</i> 17:3645-3653 (1989)
✓	BJ	Kramer, F.R. et al. "Evolution in vitro: sequence and phenotype of a mutant RNA resistant to Ethidium Bromide" <i>J. Mol. Biol.</i> 89: 719-736 (1974)
<i>MS</i> ✓	BK	Latham, J.A. et al. "The application of a modified nucleotides in aptamer selection: novel thrombin aptamers containing 5-(1-Pentyne)-2'-deoxyuridine" <i>Nucleic Acids Research</i> 22: 2817-2822(1994)

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FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Docket No.: INVIT1250-5	Serial No.: 09/834762 RECEIVED
JUL 18 2003 PATENT & TRADEMARK OFFICE		Applicant(s): Jay M. Short
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date: 04/12/2001	Group Art Unit: 1639

✓ MCR	BL	Lestienne , P and Bieth, J.G. "Inhibition of human leucocyte elastase by polynucleotides" <i>Biochimie</i> 65: 49-52 (1983)
✓	BM	Levisohn, R. and Spiegelman, S. "The Cloning of a self-replicating RNA molecule" <i>Proc. Natl. Acad. Sci. USA</i> 60: 866-872 (1968)
✓	BN	Levisohn, R. and Spiegelman, S. "Further extracellular Darwinian experiments with replicating RNA Molecules: diverse variants isolated under different selective conditions" <i>Proc. Natl. Acad. Sci. USA</i> 63:805-811 (1969)
✓	BO	Lorsch , J.R. and Szostak, J.W. "In Vitro Evolution of new ribozymes with polynucleotide kinase activity" <i>Nature</i> 371: 31-36 (1994)
✓	BP	Ma, M.Y. et al. " design and synthesis of RNA miniduplexes via a synthetic linker approach" <i>biochemistry</i>
✓	BQ	Maxam, A.M. and Gilbert, W. "A new method for sequencing DNA" <i>Proc. Natl. Acad. Sci. USA</i> 74: 560-564 (1977)
✓	BR	McCorkle, G.M. and Altman, S. "RNA's as catalysts" <i>Journal of Chemical Education</i> 64: 221-226 (1987)
✓	BS	Nelson , J et al. "Incorporation of a non-nucleotide bridge into hairpin oligonucleotides capable of high-affinity binding to the rev protein of HIV-1" <i>Biochemistry</i> 35:5339-5344 (1996)
✓	BT	Oleksyszyn, J. and Powers, J.C. " Irreversible inhibition of serine proteases by peptide derivatives of (a-Aminoalkyl)phosphonate diphenyl esters" <i>Biochemical and Biophysical Research Communications</i> 161: 143-149 (1989).
✓ MCR	BU	Oleksyszyn, J. and Powers, J.C. " Irreversible inhibition of serine proteases by peptide derivatives of (a-Aminoalkyl)phosphonate diphenyl esters" <i>Biochemistry</i> 30: 485-493 (1991)

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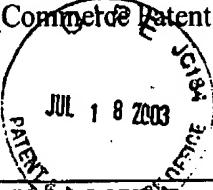
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FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Docket No.:	Serial No.:
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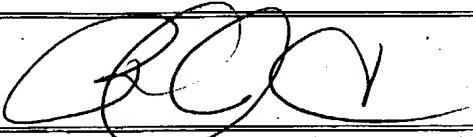
<i>ME</i>	BV	Oliphant, A.R. et al. "Cloning of random-sequence oligodeoxynucleotides" <i>Gene</i> 44: 177-183 (1986)
<i>✓</i>	BW	Oliphant, A.R. and Struhl, K. "The use of random-sequence oligonucleotides for determining consensus sequences" <i>Methods in Enzymology</i> 155: 568-582 (1987)
<i>✓</i>	BX	Oliphant, A.R. and Struhl, K. "Defining the consensus of <i>E.Coli</i> promoter elements by random selection" <i>Nucleic Acids Research</i> 16:7673-7683 (1988)
<i>✓</i>	BY	Oliphant, A.R. et al. "Defining the sequence specificity of DNA-binding proteins by selecting binding sites from random-sequence oligonucleotides analysis of yeast GCN4 protein" <i>Mol. Cell. Biol.</i> 9:2944-2949 (1989)
<i>✓</i>	BZ	Pan, T. and Unlenbeck, O.C. "In vitro selection of RNAs that undergo autolytic cleavage with Pb" <i>Biochemistry</i> 31: 3887-3895 (1992)
<i>✓</i>	CA	Piccirilli, J.A. et al. "Aminoacyl esterase activity of the <i>Tetrahymena</i> Ribozyme" <i>Science</i> 256: 1420-1424 (1992)
<i>✓</i>	CB	Prudent, J.R. et al. "Expanding the scope of RNA catalysis" <i>Science</i> 264: 1924-1927 (1994)
<i>✓</i>	CC	Ren, X.F. et al. "Formation of stable DNA loops by incorporation of nonpolar, non-hydrogen-bonding nucleoside isosteres" <i>Angew. Chem. Int. Ed. Engl.</i> 35: 743-746 (1996)
<i>✓</i>	CD	Robertson, D.L. and Joyce, G.F. "Selection <i>in vitro</i> of an RNA enzyme that specifically cleaves single-stranded DNA" <i>Nature</i> 344:467-468 (1990)
<i>ME</i>	CE	Rudinger, J. "Peptide Hormones", <i>J.A. Parsons Ed.</i> , pgs. 1-6, June 1976.

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<i>WCR</i>	CD	Sakthivel, et al. "Expanding the potential of DNA for binding and catalysis: highly functionalized dUTP derivatives that are substrates for thermostable DNA polymerases" <i>Angew. Chem. Int. Ed.</i> 37 (20) : 2872-2875 (1998)
	CE	Simon, S. et al "Inhibition of human neutrophil elastase by polyguanylic acid and other Synthetic polynucleotides" <i>Adv. Exp. Med. Biol.</i> 240: 65-74 (1988)
	CF	Simon, S. et al "Inhibition of human neutrophil elastase by polyguanylic acid and other Synthetic RNA homopolymers" <i>Exp. Lung. Res.</i> 14: 85-99 (1988)
	CG	Smith, et al. "In vitro selection without intervening amplification" <i>Angew. Chem. Int. Ed.</i> 36(17): 1879-1881 (1997)
	CH	Soukup, G. et al. "Preparation of oligonucleotide-biotin conjugates with cleavable linkers" <i>Bioconjugate Chem.</i> 6: 135-138 (1995)
	CI	Thiesen, H. and Bach, C. "Target detection assay(TDA): a versatile procedure to determine DNA binding sites as demonstrated on SP1 protein" <i>Nucleic Acids research</i> 18: 3203-3209 (1990)
	CJ	Tuerk, C. and Gold, L. "Systematic evolution of ligands by exponential enrichment: RNA ligands to bacteriophage T4 DNA polymerase" <i>Science</i> 249:505-510 (1990)
	CK	Tyagi, S. "Taking DNA probes into a protein world" <i>Nature Biotechnology</i> 14: 947-948 (1996)
	CL	Vered, M. et al. "Inhibition of human neutrophil elastase by bacterial polyanions" <i>Exp. Lung. Res.</i> 14: 67-83 (1988)
	CM	Vlasova, I.E. and Vlasov, V.V "Molecular evolution: design of nucleic acids possessing Catalytic properties and capable of specific complex formation" <i>Molecular Biology</i> 27: 1-5 (1993)
<i>WCR</i>	CN	Wiegand, T. et al. "Selection of RNA amides synthases" <i>Chemistry & Biology</i> 4:675-683 (1997)

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	CO	Xu, W. and Ellington, A "Anti-peptide aptamers recognize amino sequence and bind a protein epitope" <i>Proc. Natl. Acad. Sci. USA</i> 93: 7475-7480 (1996)
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